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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,497	04/23/2001	Samuel T. Barone JR.	42244/JEC/M770	4459

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EXAMINER	
YIMAM, HARUN M	

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/840,497	BARONE ET AL.	
	Examiner	Art Unit	
	Harun M. Yimam	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08/16/2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

2. In response to applicant's argument (page 12, 1st paragraph) that there is no disclosure in Bertram of assigning time slots to the collection of individual elementary program streams, the rejection for the claimed limitation is addressed in the original rejection of claim 12 and not claim 1. Therefore, it is Bertram in view of Bauchot, and not Bertram on its own, that disclose assigning time slots to the collection of individual elementary program streams (Bauchot—see figure 5—time slots are identified and a portion of the plurality of the first data units, "X X", are shifted left: reassigned to earlier time slots, and a new cell, " * ", and an "overhead": a portion of the plurality of the second data units, are assigned to the particular time slots). More importantly, "time slot" is not recited in claim 1 and therefore the rejection is proper.

3. In response to applicant's argument (page 12, 3rd paragraph) that Bertram does not teach or suggest that the recited "reveal command" be used for "commanding a receiver to display the interactive content", the Examiner cites Bertram—paragraph 0058, lines 1-13, where Bertram discloses that the program stream can be interactively

controlled by a user using consumer-friendly commands i.e., "PLAY" to display the interactive content, VOD—paragraph 0058, lines 1-13.

4. In response to applicant's argument (page 12, 4th paragraph) that Bertram fails to teach or suggest inserting the claimed "plurality of second data units", the Examiner cites paragraph 0038, lines 1-16, paragraph 0045, lines 1-15, and figure 6, where Bertram discloses inserting portion of the plurality of second data units (fourth program data units of T_{IN2}) into the created gap of the first data stream, T_{IN1}.

5. Applicant argues (page 13, 4th paragraph—page 14) that the "Examiner has failed to establish a prima facie case of obviousness" in that first, Bauchot is not analogous art, and second that the combination would render Bertram's system unsatisfactory.

In response to applicant's argument that **Bauchot in nonanalogous art,** it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to that particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Bauchot, like Bertram, pertains to the field of transmitting information from one point to another (i.e. in the field of applicant's endeavor). Furthermore, Bauchot discloses in column 11, lines 39-46, that the invention is applicable to any network.

In response to applicant's argument that **the combination would render Bertram's system unsatisfactory**, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Furthermore, Bauchot was simply introduced to teach manipulating data units assigned to particular time slots in data streams (see figure 5 and column 5, lines 32-37).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-10 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertram (US 2002/0064177) in view of Feinleib (US 6,637,032).

Considering claim 1, Bertram discloses an interactive television (ITV) system (paragraph 0058, lines 4-13) comprising: a first input for receiving a first data stream; a second input for receiving a second data stream (T_{IN1} and T_{IN2} in figure 6--paragraph 0044, lines 1-5); the first data stream having a higher priority than the second data stream (the priority is predefined: merging two data streams by inserting a portion of data from the second data stream into a first data stream); and a processing unit (610 in figure 6—paragraph 0044, lines 5-8, which can be used interchangeably with the processing unit—470 of figure 4—paragraph 0043, lines 5-10) coupled to the first input and the second input, characterized in that the processing unit (470 of figure 4) creates a gap in the first data stream (T_{IN1}) for inserting at least a portion of data carried by the second data stream (R) (470 in figure 4 creates a gap by detecting a null packet to insert a portion of data carried by the second data stream—R into the first data

stream—T_{IN1}: the needed gap is a null packet for merging the two data streams—paragraph 0038, lines 1-16), the gap being selected in a location in the first data stream so as to allow the data carried by the second stream to be effectively displayed without disrupting display of data carried by the first data stream (paragraph 0009, lines 12-17 and paragraph 0038, lines 13-16).

Bertram further discloses that the transport stream has one or more programs (paragraph 0010, lines 1-4).

Bertram fails to disclose that the first and second data streams are for a particular television program.

In analogous art, Feinleib explicitly discloses a first data stream (primary content, main program that supports closed captioning—column 4, lines 15-22) and a second data stream (enhancing/interactive content used to enhance the primary content—column 5, lines 25-35) for a particular television program (primary content, main program—column 5, lines 45-56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bertram's system to include first and second data streams for a particular television program, as taught by Feinleib, for the benefit of utilizing enhancing content to enhance a particular television program—column 5, lines 45-56).

As for claim 2, it is rejected for the same reasons discussed in claim 1.

With regards to claim 3, it is rejected for the same reasons discussed in claim 1.

Regarding claim 4, Bertram discloses that the program stream can be interactively controlled by a user using consumer-friendly commands i.e., "PLAY" to display the interactive content, VOD—paragraph 0058, lines 1-13.

Bertram fails to explicitly disclose that a reveal command is inserted in the gap, the reveal command commanding a receiver to display the interactive content.

In analogous art, Feinleib discloses that a reveal command (supplemental data i.e., URL, trigger, or application name—column 8, lines 38-40) is inserted in the gap (embedded directly in the closed captioning script—column 9, lines 49-50), the reveal command (non-video data/ supplemental data in the VBI) commanding a receiver (104 of figure 6) to display the interactive content (column 12, lines 44-47 and column 11, lines 18-27 and 64-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bertram's system to include a reveal command in the first program stream, as taught by Feinleib, for the benefit of activating the interactive content/enhancing content of the program (column 12, lines 44-47 and column 11, lines 18-27).

Considering claim 5, Bertram discloses an interactive television system (paragraph 0058, lines 4-13) comprising: a first input for receiving a first data stream having a plurality of first data units; a second input for receiving a second data stream having a plurality of second data units (T_{IN1} and T_{IN2} in figure 6--paragraph 0045, lines 1-7); and a processing unit (610 in figure 6—paragraph 0044, lines 5-8) coupled to the first input and the second input, the processing unit including logic for: creating a gap in the first data stream (T_{IN1}) for inserting at least a portion of data carried by the second data stream (R) (470 in figure 4 creates a gap by detecting a null packet to insert a portion of data carried by the second data stream—R into the first data stream—T_{IN1}: the needed gap is a null packet for merging the two data streams—paragraph 0038, lines 1-16); inserting a first portion of the plurality of second data units into the created gap (paragraph 0038, lines 1-16); detecting another gap in the first data stream; and electronically inserting a second portion of the plurality of second data units into the detected gap (paragraph 0012, lines 13-16).

Bertram further discloses that the transport stream has one or more programs (paragraph 0010, lines 1-4).

Bertram fails to disclose that the first and second data streams are for a particular television program.

In analogous art, Feinleib explicitly discloses a first data stream (primary content, main program that supports closed captioning—column 4, lines 15-22) and a second

data stream (enhancing/interactive content used to enhance the primary content—column 5, lines 25-35) for a particular television program (primary content, main program—column 5, lines 45-56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bertram's system to include first and second data streams for a particular television program, as taught by Feinleib, for the benefit of utilizing enhancing content to enhance a particular television program—column 5, lines 45-56).

As for claim 6, it is rejected for the same reasons discussed in claim 1.

With regards to claim 7, it is rejected for the same reasons discussed in claim 1.

Regarding claim 8, it is met by the combination of Bertram and Feinleib. In particular, Bertram discloses that the created and detected gaps are time slots in a television signal containing no data units (Bertram discloses that the controllers (processing units) of figure 4 and figure 6 may be interchanged. Therefore, the created and detected gaps are NULL packets assigned to certain time slots containing no data—paragraph 0034, lines 6-11).

Considering claim 9, it is met by the combination of Bertram and Feinleib. In particular, Bertram discloses that the created gap is as close to a desired reveal time as possible (paragraph 0038, lines 13-15).

As for claim 10, it is rejected for the same reasons discussed in claim 4.

Regarding claim 17, it is rejected for the same reasons discussed in claim 5.

Considering claim 18, it is rejected for the same reasons discussed in claim 2.

As for claim 19, it is rejected for the same reasons discussed in claim 3.

With regards to claim 20, it is rejected for the same reasons discussed in claim 8.

Regarding claim 21, it is rejected for the same reasons discussed in claim 9.

Considering claim 22, it is rejected for the same reasons discussed in claim 4.

8. Claims 11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertram (US 2002/0064177) in view of Feinleib (US 6,637,032), as applied to claims 5 and 17 above, and further in view of Landis (US 5,428,400).

With regards to claim 11, Bertram and Feinleib disclose MPEG data transmission (payload data in an MPEG packet is inherent because it is the nature of a packet to have a header and a payload). Bertram and Feinleib further disclose revealed closed captioning data (Feinleib—column 7, lines 5-32).

Bertram and Feinleib fail to explicitly disclose closed caption reveal command data.

In analogous art, Landis discloses closed caption reveal command data (column 4, lines 46-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Bertram and Feinleib to include closed caption reveal command data, as taught by Landis, for the benefit of commanding the display of closed caption data (column 4, lines 46-51).

As for claim 23, it is rejected for the same reasons discussed in claim 11.

9. Claims 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertram (US 2002/0064177) in view of Bauchot (US 6,141,336).

Considering claims 12 and 24, Bertram discloses an interactive television system (paragraph 0058, lines 4-13) comprising: a first input for receiving a first data stream; a

second input for receiving a second data stream (T_{IN1} and T_{IN2} in figure 6--paragraph 0045, lines 1-7); and a processing unit (610 in figure 6—paragraph 0044, lines 5-8) coupled to the first input and the second input.

Bertram fails to disclose that the processing unit includes logic for: identifying time slots assigned to the plurality of first data units in the first data stream; reassigning a portion of the plurality of first data units assigned to particular time slots to earlier time slots; and assigning at least a portion of the plurality of second data units in the second data stream to the particular time slots.

In analogous art, Bauchot discloses a processing unit (master scheduler—29 in figure 1) including logic for: identifying time slots assigned to the plurality of first data units in the first data stream (column 5, lines 32-37); reassigning a portion of the plurality of first data units assigned to particular time slots to earlier time slots; and assigning at least a portion of the plurality of second data units in the second data stream to the particular time slots (see figure 5—time slots are identified and a portion of the plurality of the first data units, "X X", are shifted left: reassigned to earlier time slots, and a new cell, " * ", and an "overhead": a portion of the plurality of the second data units, are assigned to the particular time slots).

It would have been obvious to one of ordinary skill in the art to modify Bertram's system to include a reassignment of a portion of data, as taught by Bauchot, for the

benefit of allocating cells of data to particular time slots according to their transmission priority (column 7, lines 18-32).

10. Claims 13-15 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertram (US 2002/0064177) in view of Bauchot (US 6,141,336), as applied to claims 12 and 24 above, and further in view of Feinleib (US 6,637,032).

Claims 13 and 25 are rejected for the same reasons discussed in claims 1 and 2.

Claims 14 and 26 are rejected for the same reasons discussed in claims 1 and 3.

Claims 15 and 27 are rejected for the same reason discussed in claim 10.

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bertram (US 2002/0064177) and Bauchot (US 6,141,336) in view of Feinleib (US 6,637,032), as applied to claim 13 above, and further in view of Landis (US 5,428,400).

Claim 16 is rejected for the same reasons discussed in claim 11.

12. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bertram (US 2002/0064177) in view of Bauchot (US 6,141,336), as applied to claim 24 above, and further in view of Landis (US 5,428,400).

Considering claim 28, Bertram and Bauchot disclose an interactive television system (Bertram—paragraph 0058, lines 4-13).

Bertram and Bauchot fail to explicitly disclose closed caption reveal command data.

In analogous art, Landis discloses closed caption reveal command data (column 4, lines 46-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Bertram and Bauchot to include closed caption reveal command data, as taught by Landis, for the benefit of commanding the display of closed caption data (column 4, lines 46-51).

13. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feinleib (US 6,637,032) in view of Landis (US 5,428,400).

Considering claim 29, Feinleib discloses an interactive television (ITV) system (column 4, lines 29-42), a method for merging a closed caption data stream and an ITV data stream (column 4, lines 12-22), the closed caption data stream (primary content, main program that supports closed captioning—column 4, lines 15-22) including closed caption payload data (closed captioning script for a program—58 in figure 2 and column

6, lines 48-60), and the ITV data stream (enhancing/interactive content used to enhance the primary content—column 5, lines 25-35) including ITV reveal command data (supplemental data i.e., URL, trigger, or application name—column 8, lines 38-40) and ITV payload data (web page, graphical data—column 5, lines 45-65), the method comprising:

identifying an ITV reveal time slot (identifying the appropriate spot in the closed captioning script of the program to insert the enhancing content—column 7, lines 41-50) for the ITV reveal command data (supplemental data i.e., URL, trigger, or application name—column 7, lines 41-50 and column 8, lines 38-40), the ITV reveal command data commanding a receiver (104 of figure 6) to display the interactive content associated with the ITV payload data (column 12, lines 44-47, column 11, lines 18-27 and 64-67);

determining whether the ITV reveal time slot is available (determining at which point in the program to insert the ITV data—column 7, lines 41-45);

responsive to a determination that the ITV reveal time slot is assigned to the closed caption payload data (since place holder data files are assigned at the identified spots in the closed caption payload data—column 8, lines 20-40 and since the closed caption payload data, "Oh, hi how are you"—column 7, line 16, does not initially show an open time slot for ITV reveal command data, the ITV reveal time slot is assigned to the closed caption payload data):

segmenting at least the closed caption payload data assigned to the ITV reveal time slot (place holder data files are assigned at the identified spots/discrete points in the closed captioning script—column 8, lines 20-40); and

reassigning the segmented closed captioning payload data ("Oh, hi how") to one or more time slots earlier than the ITV reveal time slot ("Oh, hi how" is reassigned to one or more time slots earlier than the ITV reveal time slot—column 7, line 53); and

assigning the ITV reveal time slot to the ITV reveal command data (column 7, lines 45-54 and column 8, lines 35-40).

Feinleib further discloses revealed closed captioning data (column 7, lines 5-32) but fails to explicitly disclose closed caption reveal command data.

In analogous art, Landis discloses closed caption reveal command data (column 4, lines 46-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Feinleib's system to include closed caption reveal command data, as taught by Landis, for the benefit of commanding the display of closed caption data (column 4, lines 46-51).

As for claim 30, it is rejected for the same reasons discussed in claims 11 and 29.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harun M. Yimam whose telephone number is 571-272-7260. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-272-6000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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